

Appendix 2.

Ecological Reference Worksheet

Author(s) / participant(s): Kenneth Alcon

Contact for lead author : John Tunberg

Reference site used? Yes/No

No

Date: 5/5/2005 MLRA: 70A Ecological Site: Sandy Plains This must be verified based on soils and climate (see Ecological Site Description). Current plant community cannot be used to identify the ecological site.

Indicators: For each indicator, describe the potential for the site. Where possible, (1) use numbers, (2) include expected range of values for above and below average years for <u>each</u> community within the reference state, when appropriate & (3) site data. Continue description on separate sheet.	Indicator Weight
1. Number and extent of rills : None	
2. Presence of water flow patterns: None	
3. Number and height of erosional pedestals or terracettes: None	
4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground) : 40 to 50% Bare Ground.	
5. Number of gullies and erosion associated with gullies: None	
6. Extent of wind scoured, blowouts and/or depositional areas: Very seldom, however some erosion can be expected in disturbed areas.	
7. Amount of litter movement (describe size and distance expected to travel) : None or very little if present.	
8. Soil surface (top few mm) resistance to erosion (stability) values are averages - most sites will show a range of values for both plant canopy and interspaces, if different): Soil Stability class anticipated to 3-4. These values will need to be verified in reference site.	
9. Soil surface structures and SOM content (include type and strength of structure, and A-horizon color and thickness for both plant canopy and interspaces, if different) : SOM ranges from 1-3%.	
10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff:	
11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):	
12. Functional/Structural Groups (list in order of descending dominance by above-ground weight using symbols: indicate much greater than (>>), greater than (>), and equal to (=) :	
13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence) :	
14. Average percent litter cover (_____ %) and depth (_____ inches).	
15. Expected annual production (this is <u>TOTAL</u> above-ground production, not just forage production):	
16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, "can, and often do , continue to increase regardless of the management of the site and may eventually dominate the site":	
17. Perennial plant reproductive capability :	

Photograph (s)

MLRA :

Date :

Ecological Site :

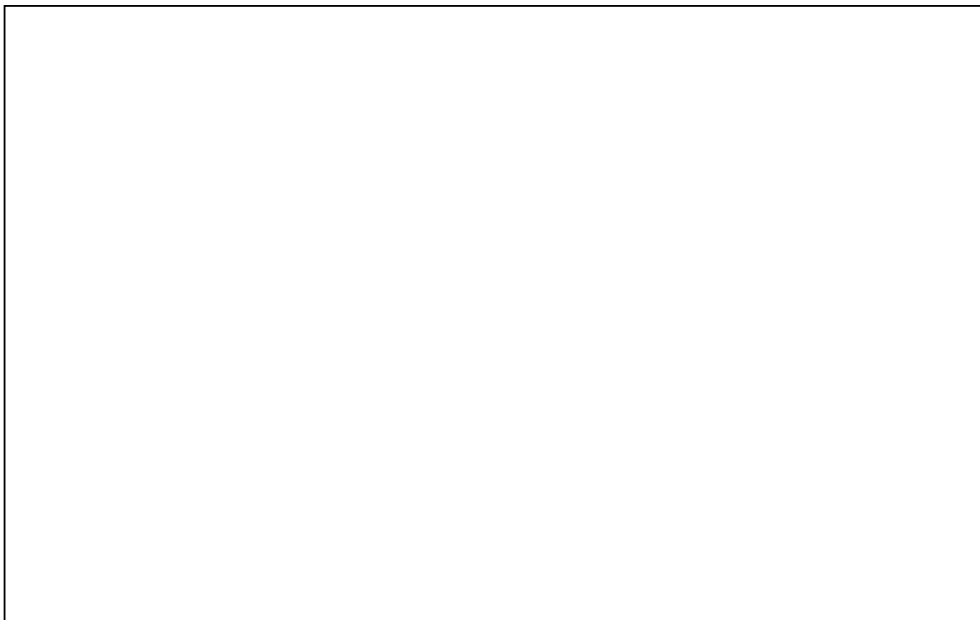


Photo # 1

Comments :

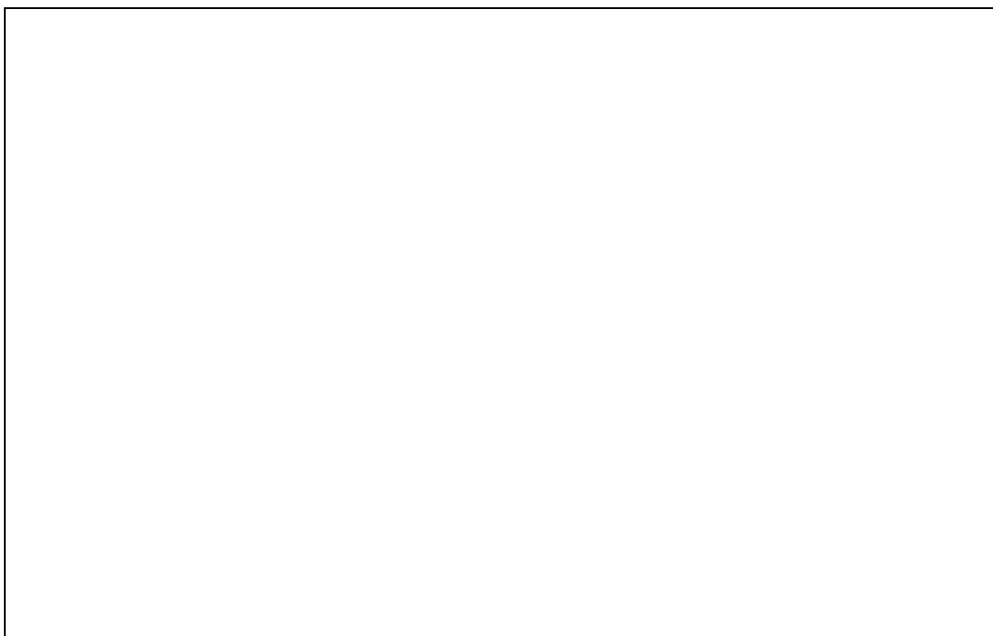


Photo # 2

Comments :

Appendix 4.

Functional / Structural Groups Worksheet

State	Office	Ecological Site
Alabama	Alabama Department of Conservation and Forestry	Alabama Department of Conservation and Forestry
Alaska	Alaska Department of Fish and Game	Alaska Department of Fish and Game
Arizona	Arizona Department of Game and Fish	Arizona Department of Game and Fish
Arkansas	Arkansas Department of Game and Inland Fisheries	Arkansas Department of Game and Inland Fisheries
California	California Department of Fish and Game	California Department of Fish and Game
Colorado	Colorado Department of Game and Fish	Colorado Department of Game and Fish
Connecticut	Connecticut Department of Environmental Protection	Connecticut Department of Environmental Protection
Delaware	Delaware Department of Natural Resources and Environmental Control	Delaware Department of Natural Resources and Environmental Control
Florida	Florida Department of Natural Resources	Florida Department of Natural Resources
Georgia	Georgia Department of Natural Resources	Georgia Department of Natural Resources
Hawaii	Hawaii Department of Land and Natural Resources	Hawaii Department of Land and Natural Resources
Idaho	Idaho Department of Fish and Game	Idaho Department of Fish and Game
Illinois	Illinois Department of Natural Resources	Illinois Department of Natural Resources
Indiana	Indiana Department of Natural Resources	Indiana Department of Natural Resources
Iowa	Iowa Department of Natural Resources	Iowa Department of Natural Resources
Kansas	Kansas Department of Wildlife	Kansas Department of Wildlife
Kentucky	Kentucky Department of Fish and Game	Kentucky Department of Fish and Game
Louisiana	Louisiana Department of Wildlife and Fisheries	Louisiana Department of Wildlife and Fisheries
Maine	Maine Department of Inland Fisheries and Wildlife	Maine Department of Inland Fisheries and Wildlife
Maryland	Maryland Department of Natural Resources	Maryland Department of Natural Resources
Massachusetts	Massachusetts Department of Environmental Protection	Massachusetts Department of Environmental Protection
Michigan	Michigan Department of Natural Resources	Michigan Department of Natural Resources
Minnesota	Minnesota Department of Natural Resources	Minnesota Department of Natural Resources
Mississippi	Mississippi Department of Wildlife, Fisheries, and Forestry	Mississippi Department of Wildlife, Fisheries, and Forestry
Missouri	Missouri Department of Conservation	Missouri Department of Conservation
Montana	Montana Department of Fish and Wildlife	Montana Department of Fish and Wildlife
Nebraska	Nebraska Game and Parks Commission	Nebraska Game and Parks Commission
Nevada	Nevada Department of Wildlife	Nevada Department of Wildlife
New Hampshire	New Hampshire Department of Fish and Game	New Hampshire Department of Fish and Game
New Jersey	New Jersey Department of Environmental Protection	New Jersey Department of Environmental Protection
New Mexico	New Mexico Department of Game and Fish	New Mexico Department of Game and Fish
New York	New York Department of Environmental Conservation	New York Department of Environmental Conservation
North Carolina	North Carolina Department of Wildlife and Natural Resources	North Carolina Department of Wildlife and Natural Resources
North Dakota	North Dakota Game and Parks Commission	North Dakota Game and Parks Commission
Ohio	Ohio Department of Natural Resources	Ohio Department of Natural Resources
Oklahoma	Oklahoma Department of Wildlife Conservation	Oklahoma Department of Wildlife Conservation
Oregon	Oregon Department of Fish and Wildlife	Oregon Department of Fish and Wildlife
Pennsylvania	Pennsylvania Department of Environmental Protection	Pennsylvania Department of Environmental Protection
Rhode Island	Rhode Island Department of Environmental Management	Rhode Island Department of Environmental Management
South Carolina	South Carolina Department of Natural Resources	South Carolina Department of Natural Resources
South Dakota	South Dakota Game and Parks Commission	South Dakota Game and Parks Commission
Tennessee	Tennessee Department of Wildlife Resources	Tennessee Department of Wildlife Resources
Texas	Texas Department of Parks and Wildlife	Texas Department of Parks and Wildlife
Utah	Utah Department of Wildlife Resources	Utah Department of Wildlife Resources
Vermont	Vermont Department of Fish and Game	Vermont Department of Fish and Game
Virginia	Virginia Department of Game and Inland Fisheries	Virginia Department of Game and Inland Fisheries
Washington	Washington Department of Fish and Wildlife	Washington Department of Fish and Wildlife
West Virginia	West Virginia Department of Natural Resources	West Virginia Department of Natural Resources
Wisconsin	Wisconsin Department of Natural Resources	Wisconsin Department of Natural Resources
Wyoming	Wyoming Game and Parks Commission	Wyoming Game and Parks Commission

Observers _____ **Date** _____

[illegible]

Indicate whether each "structural/functional group" is a Dominant (D)(roughly 40-100% composition), a**Sub-dominant (S)** (roughly 10-40%) composition) a**Minor Component (M)** (roughly 2-5% composition), or a**Trace Component (T)** (<2% composition) based on weight or cover composition in the area of interest (e.g., "Actual ² column) relative to the "Potential ² column derived from information found in the ecological site/description and/or at the ecological reference area.

Biological Crust 3 dominance is evaluated solely on cover not composition by weight